

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
CORPUS CHRISTI DIVISION**

**ERIC STEVENS, DARREN FULTON,
and SCOTTY J. MCCOLLUM, each
plaintiff individually and on behalf of all
others similarly situated,**

CIVIL ACTION NO.: 2:18-cv-00456

Plaintiffs,

v.

FORD MOTOR COMPANY,

Defendant.

**FORD MOTOR COMPANY'S MOTION TO EXCLUDE THE REPORT AND
TESTIMONY OF PLAINTIFFS' EXPERT BRADLEY L. EDGAR, PH.D.**

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INTRODUCTION

Ford Motor Company moves to exclude Plaintiffs' technical expert Bradley L. Edgar, Ph.D. because his testimony does not satisfy the requirements for admissibility under Rule 702 and *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993). Plaintiffs rely on Dr. Edgar to prove that the Bosch-supplied CP4 high pressure fuel pump Ford uses in its Super Duty (F-250-550) and Medium Duty commercial (F-650-750) trucks contains a classwide defect. *See* Pls. Mot. Class Cert. 4-10; *see also generally* Dr. Edgar's Expert's Technical Report ("Edgar Rpt."), **Ex. 1**. Dr. Edgar opines that Bosch and Ford failed to properly test the CP4 pump to assess its ability to operate with "low-lubricity" diesel fuel sold in gas stations in the United States, and that, as a result, the pump is fragile and prone to catastrophic failure when operated using commercially available diesel fuel. Edgar Rpt. 9. Dr. Edgar's methodology of choosing to rely on unsupported assumptions and refusing to consider undisputed relevant facts that contradict his conclusions is fatally flawed. It has resulted in unreliable, unhelpful, and thus inadmissible conclusions.

Despite criticizing Ford and Bosch's development testing on the CP4 pump, he candidly acknowledged in his deposition that he had not even reviewed the development testing that Bosch and Ford conducted to prove the pump's robustness to commercially available U.S. diesel fuel, or the military usage testing with extremely low lubricity test fuels. Deposition of Bradley Edgar, Ph.D. ("Edgar Dep.") 39, 41-42, 52-54, **Ex. 2**. Nor has he conducted any testing himself to assess his proposed hypothesis that Ford's CP4 pump is somehow not robust to U.S. market fuel. Edgar Dep. 69, 137.

Dr. Edgar relies heavily on data about Bosch's sale of replacement pumps for class vehicles, which he thinks is high and indicative of a defect. Yet when questioned, he admits that he cannot identify how many replacement pumps have actually been installed in class vehicles, how many of those pumps were installed due to a pump failure, and of those that may have been

installed due to a pump failure, how many of those failures were caused by the alleged defect versus the many documented non-defect-related causes of pump failure such as customer abuse, misfueling with gasoline, or improper maintenance. Edgar Dep. 99, 101, 103. In further support of his defect theory, Dr. Edgar relies on endurance testing data in a 2003 Bosch presentation that he claims shows that “the CP4 would not have an acceptable operating lifetime using fuel meeting the U.S. specification,” even though in his deposition he admitted he did not know what pump was being evaluated or if it applied to the CP4. Edgar Rpt. 35-36; Edgar Dep 44-46, 48. In fact, the information and conclusions in the presentation are not applicable to the CP4 pump. May 14, 2021 Declaration of Randy Nussio (“Nussio Dec. II”), **Ex. 3**.

Dr. Edgar knows nothing about the named Plaintiffs’ vehicles, having failed to talk to Plaintiffs, review documents about their vehicles, or show up to inspect their vehicles. He does not know whether the CP4 pumps in their vehicles ever failed, or if so, what may have caused such failure. And though he opined in his report that Ford could have used Bosch’s previous-generation CP3 pump, he admitted in his deposition that he had neither compared the two pumps’ field performance nor evaluated whether the CP3 pump could meet all of Ford’s utility requirements for the class vehicles’ fuel system. Edgar Dep. 69, 127-28.

For these reasons, and as more fully stated below, Dr. Edgar’s opinions and testimony should be excluded. The court must take up and rule on this motion now, as the Fifth Circuit has recently made clear that inadmissible expert testimony cannot be considered in ruling on a motion for class certification. *Prantil v. Arkema Inc.*, 986 F.3d 570 (5th Cir. 2021).

BACKGROUND

I. The Subject Vehicles and Components

The vehicles at issue are Ford F-250 through F-750 trucks equipped with Ford’s 6.7L diesel engine in the 2011-2019 model years. Part of Ford’s flagship F-Series line of trucks, these vehicles

range from F-250 pickup trucks all the way up to F-750 vehicles Ford sells as incomplete vehicles intended for aftermarket upfitters to customize into purpose-built commercial vehicles. Customers use these vehicles for everything from daily drivers to work trucks for skilled trades, to ambulances, to tow trucks, to tractor-trailers for hauling. An important aspect of the utility of Ford Super Duties is the available diesel engine, which provides greater torque at lower engine RPM than gas engines. The combined power with increased efficiency is a hallmark of diesel engines such as the 6.7L Ford engine at issue.

A. The 6.7L Power Stroke Diesel Engine and Fuel System

Ford introduced its 6.7L Power Stroke diesel engine for the 2011 model year of its Super Duty trucks. The engine is a V8 configuration, with two banks of four cylinders each mounted to the engine block that houses the crank shaft. Unlike its predecessors, the 6.7L was designed in-house at Ford Motor Company rather than by an independent supplier.

In a Super Duty truck, the 6.7L engine is chassis-mounted longitudinally under the hood. The fuel system that supplies diesel fuel to the engine consists of two systems: the low-pressure system mounted to the vehicle and high-pressure system incorporated into the engine. The low-pressure system works to deliver diesel fuel from the fuel tank, which is mounted mid-ship between the front and rear axles, up to the high pressure pump mounted at the front of the engine, in the valley of the “V” formed by the engine’s two cylinder heads.

The low pressure fuel system performs four critical functions in supplying fuel to the high pressure pump. It uses a low pressure fuel pump to (1) supply an adequate amount of fuel for engine operation, at (2) the appropriate fuel pressure for the high pressure pump. The low pressure fuel system also works to (3) filter out particles and water that may be present in the diesel fuel. Finally, the low pressure fuel system (4) regulates fuel temperature through fuel cooler that runs

off of the engine's coolant system. Report of Robert Kuhn ("Kuhn Rpt.") 9-12, Ex. 5 to Ford's Class Cert. Opp.

The low pressure fuel pump delivers fuel from the fuel tank through fuel lines at roughly 65 psi (about 4.5 bar) up to a filter assembly called a Diesel Fuel Conditioning Module ("DFCM") mounted underneath the vehicle on the inside of the left frame rail. The DFCM contains the primary fuel filter, which performs two functions: filters out particles down to ten microns (0.01 mm) in size and separates out water in the diesel fuel. Deposition of Carlos Armesto ("Armesto Dep.") 14- 17, **Ex. 4**; Report of Peter Lillo. Ph.D. ("Lillo Rpt.") 8, Ex. 7 to Ford's Class Cert. Opp. Water that the filter removes from the fuel is stored in a reservoir at the bottom of the DFCM. A Water in Fuel ("WIF") sensor detects when the water level in the reservoir reaches three quarters of its capacity. When the WIF sensor is activated, it sets a message in the dashboard screen alerting the vehicle operator. The operator can drain water from the reservoir by turning a valve on the bottom of the DFCM. After flowing through the DFCM, the fuel then travels through fuel lines towards the front of the vehicle where it then goes through a second level of filtration before it enters the high pressure pump. Kuhn Rpt. 11, 18-19; Lillo Rpt. 17-19.

Like the primary fuel filter, the secondary fuel filter removes both particles and water. The secondary filter removes particles down to four microns (0.004 mm) in size. Consistent with its secondary purpose, the secondary filter holds water within the filter housing itself, which is replaced along with the fuel filters. After fuel flows through the secondary filter, it passes a pressure and temperature sensor at the inlet of the high pressure pump. If this sensor detects that the fuel is below the fuel system pressure requirement, which may reflect that the fuel filters are restricted from capturing excessive amounts of particle contamination, it sets a dashboard driver alert and eventually reduces the engine's power output. After passing this sensor, fuel flows into

the CP4 high pressure pump. Lillo Rpt 10-11, 17-18; Deposition of Brien Fulton (“Fulton Dep.”) 31-32, **Ex. 5**.

B. The CP4.2 High Pressure Fuel Pump

As noted above, the high pressure pump is mounted at the front of the engine. It is powered directly by the rotation of the crankshaft. The pump pressurizes fuel to roughly 29,000 psi (2,000 bar) with two pistons driven by an oval-shaped camshaft that spins in the main pump body. Lillo Rpt. 10. To translate the camshaft’s rotation into the pistons’ up and down motion, a roller mounted into a roller shoe at the bottom of the piston spins with the camshaft, guiding the piston up and down as the shape of the oval rotates. Diesel fuel enters the main body of the pump, circulating around the camshaft, rollers, and in the pumping cylinders. As it circulates through these parts of the pump, the fuel lubricates and cools these moving components. After lubricating the pump’s internal components, some fuel flows into the pump’s cylinder heads, where the pistons pressurize it and push the fuel into the high pressure fuel pipes. This fuel then flows to the fuel rails and fuel injectors to power the engine. Much of the fuel used for lubricating and cooling the pump’s internal components is not needed to power the engine and flows out of the pump, through the fuel cooler, and back to the vehicle fuel tank. That fuel then passes through the low pressure fuel system and filters again before flowing into the high pressure pump. Lillo Rpt. 10 -11.

II. Ford’s and Bosch’s Testing to Validate the Durability of the CP4.2 Fuel Pump

Validating the durability of the CP4.2 fuel pump Ford incorporated into its vehicles started with the pump’s supplier, Bosch. Like Ford, Bosch monitors diesel fuel quality worldwide and designs its validation program around the quality of the fuel it observes in the marketplace. Ex. 8A to Fulton Dep., “Global Robustness Validation Approach,” at 3, **Ex. 6**; Fulton Dep. 239-44. There are many fuel quality characteristics of diesel fuel, but at issue in this case is lubricity, which is important because, as noted above high pressure diesel fuel pumps such as the CP4 use the diesel

fuel to lubricate the pump during operation and prevent abnormal wear between the metal components within the pump.

There is an industry standard for diesel fuel lubricity in the U.S. – ASTM D975 – which sets the standard at 520 wear scar. Wear scar is the measure of a fluid’s lubricating ability – the higher the wear scar value is, the lower its lubricity. (For example, a 400 wear scar fuel has better lubricating ability than a 500 wear scar fuel.) ASTM D975 is a voluntary consensus standard adopted into some (but not all) state laws, and all stakeholders in the diesel engine industry such as Bosch and Ford understand that some commercially available diesel fuel in the U.S. will not meet the standard. Expert Report of Roger Gault (“Gault Rpt.”) 5, Ex. 3 to Ford’s Class Cert. Opp. For this reason, such stakeholders subscribe to and analyze fuel samples routinely taken from gas stations across the U.S. by entities such as SGS, the Alliance of Automobile Manufacturers, and Infineum. The results of these surveys over the years are not secret and have been produced and made available to Dr. Edgar in this case. They show that the vast majority of diesel fuel sold at gas stations and truck stops in the U.S. is at or below the 520 micron wear scar standard. 99% of diesel fuel sold in the U.S. between 2010 and 2020 measured at 557 micron wear scar or below. *See* Gault Rpt. 7-9.

The undisputed testing documentation in this case – which Dr. Edgar has not reviewed – shows that Bosch and Ford validated the CP4 pump to be robust to the market fuel characteristics reflected in the market survey data discussed above. In this regard, [REDACTED]

[REDACTED] *See* “Global Robustness Validation Approach” at 13. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] *Id.* at 3-5. [REDACTED]

[REDACTED] *Id.* at

10-16; “Bosch Validation Testing – Customer Version,” FORD_DIESEL_00029330, **Ex. 7**; Fulton Dep. 239-44.

By early 2009, Bosch had successfully completed a battery of [REDACTED] tests on the CP4 pump used in Ford’s 6.7L engine [REDACTED] **Ex. 9** to Fulton Dep. “Ford Validation V8 (endurance test summary),” at 1-2, **Ex. 8**. [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] “Bosch Validation Testing – Customer Version” ; *see also* February 3, 2021 Declaration of Randy Nussio (“Nussio Decl. 1”)1-3, **Ex. 9**.

Ford did more robustness testing on the CP4 pump at both the engine and full-vehicle levels. As Ford engineer Brien Fulton explained, Ford’s Design Verification Plan & Report (“DVP&R”) documents this testing. Fulton Dep. 246-49; **Ex. 10** to Fulton Dep. “Design Verification Plan & Report,” **Ex. 10**. [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] *See* DVP&R at 1-2. In these tests, Ford drove Super Duty trucks while pulling trailers,

¹ Multiplying test hours by estimated speed provides a rough estimate of the mileage equivalent. Assuming a conservative speed of 25 MPH, this testing was the equivalent of driving roughly 275,000 miles.

while driving at high speeds, and for up to [REDACTED] miles per vehicle. *Id.* As Ford’s validation testing tracking sheet shows, these tests totaled more than [REDACTED] kilometers (roughly [REDACTED] miles). Fulton Dep. 250-51; Ex. 11 to Fulton Dep. (Validation Test Tracking Sheet), at 3, Ex. 11. Beyond these tests that Ford required to validate the fuel system, it ran [REDACTED] [REDACTED]² *Id.* at 2.

[REDACTED] Battle zones do not always have “gas station” diesel fuel available. [REDACTED]

[REDACTED] In addition, the U.S. Army Tank Automotive Research, Development and Engineering Center (“TARDEC”) tested the 6.7L engine at the Southwest Research Institute using diesel fuel, JP8 fuel, and JP8/synthetic kerosene blends with wear scar ratings up to 840 microns. The engine was tested 4 times for 210 hours with each test fuel using a standard U.S. military dynamometer test cycle. The Executive Summary of that evaluation, produced in this litigation and publicly available, stated: “Post-test fuel injection system inspection found tested components to be in similar condition throughout all tests, despite the large difference in fuel lubricity from the baseline to SPK tests. Results from testing support the compatibility of the fuel lubricated HPCR

² Using the same conservative 25 MPH speed estimate, this additional testing was the equivalent of roughly 500,000 miles of driving.

fuel system utilized on the Ford 6.7 L with military specified fuels at normal ambient conditions.”
Evaluation of Military Fuels using a Ford 6.7 L PowerStroke Diesel Engine; August 2011, vi.
(FORD_DIESEL_00040753).

III. Dr. Edgar’s Methodology

Dr. Edgar reviewed none of the testing from Ford, Bosch, or TARDEC in rendering his opinion that the CP4 pump in class vehicles was inadequately tested and is thus incompatible with U.S. diesel fuel. Instead he asserted that “[t]here is also an absence of testing and/or test results on fuel that failed to meet the ASTM standards.” Edgar Rpt. 50. He matter-of-factly admitted in his deposition that he was oblivious to it:

Q: What tests did Bosch run to validate the durability of this pump?

A: I’m not sure.

Q: And what tests did Ford run to validate the durability of this pump?

A: I don’t have the full details on those tests.

* * *

Q: Let’s talk about Ford testing. What is your understanding of the testing that - beyond the JP8 testing, the development test that Ford did on the CP4 pump?

A: I believe that Ford worked with Bosch and relied on them for a lot of the fundamental testing. What I have not seen are data from endurance tests that I thought Ford would have conducted, you know, in field. So I don’t know what the extent of Ford’s testing on the pump was.

* * *

Q: Did you ask for that information to be provided to you by counsel for the plaintiffs?

A: Yes, I believe so.

Q: Have you reviewed that information? Have you received that information?

A: I don't recall seeing any data on durability testing.

Q: Do you recall seeing any information concerning test protocols?

A: No.

Q: Do you recall seeing information, in summary form or otherwise, listing the various different endurance tests that Ford does at the engine level, for instance, engine durability testing, including the pump?

A: No.

Q: Have you seen any information, in summary form or otherwise, concerning full-vehicle durability testing done by Ford to assess the robustness of the CP4 pump?

A: No, I have not.

Q: And have you requested that information from your counsel?

A: Not that I can recall.

Q: All right. Having not reviewed the testing done by either Bosch or Ford on the robustness of the CP4 pump, is it fair to say that you do not have a basis to opine that the testing was not adequate?

A: Having not reviewed the specifics of the Ford data, it would be hard to opine that the testing was inadequate or not accurate. The fact that there's a high number of failures in the field, and there was e-mails in interchange with Ford talking about solutions and how to address the failure rates, leads me to wonder if the testing was done in the proper manner or if it really addressed the failure rates.

Q: But an actual criticism of the testing would require a review of that testing; is that fair to say?

A: Yes.

Edgar Dep. 39, 52-54.

Dr. Edgar likewise ignored the testing Ford conducted using 700+ wear scar JP8 jet fuel to certify class vehicles for use on U.S. military installations:

Q: What is it that you reviewed about the JP8 testing?

A: My recollection is I - it was an e-mail exchange that the testing was done, and that's - that's the extent to which I am familiar with the data.

Q: So you haven't reviewed the report, correct?

A: That's correct.

Q: Did you ask plaintiffs' counsel to provide you the report of the JP8 testing that was done on the fuel pump at issue in this case?

A: No, I didn't.

Q: So you have written a report critical of the robustness of the CP4 pump used in class vehicles as it pertains to durability on high wear scar fuel. You find out through reading an e-mail that Ford has conducted robustness testing using 700-plus wear scar fuel, and you don't request the report of that testing so that you can review it in forming your analysis, is that fair?

MR. PATTERSON: Object to form.

THE WITNESS: *That's correct. I didn't request the test data.*

Edgar Dep. 41-42 (emphasis added).

Similarly, though Dr. Edgar opined in his report that Bosch's CP3 pump – the predecessor to the CP4 – was a more robust design and that it represented a feasible alternative design that Ford should have used in the class vehicles, he acknowledged in his deposition that he had conducted no comparative analysis of the field performance of the two pumps to support his opinion. Edgar Dep. 65-66, 68-69, 131-32. And he admitted he had no basis for his claim that the CP3 would meet Ford's performance requirements. Edgar Dep. 127-29. In this regard, he stated in his report that the feasibility of the CP3 was proven out by data showing that it would meet Ford's

2000 bar fuel rail pressure requirement, but he then admitted in his deposition that the data sources he cited for that claim did not support it. Edgar Dep. 122-26. He further acknowledged that beyond rail pressure, he had not analyzed whether the CP3 could meet any of the other performance requirements Ford had for the class vehicles' fuel system, including torque, emissions, vibration and harshness, efficiency, and temperature, all of which he admitted relate to the utility and usefulness of the class vehicles. Edgar Dep. 127-29.

Dr. Edgar leans heavily on the number of replacement Ford CP4 fuel pumps Bosch sold to Ford and independent aftermarket sellers. He states in his report that for every 12.5 class vehicles sold, Bosch has sold 1 replacement pump – representing an 8% replacement rate, which he believes is high and indicative of a defect. However, besides not providing any comparative data for similar pumps, Dr. Edgar admits that his analysis *assumes* that every replacement pump has actually been installed in a vehicle in a repair necessitated by a failure of the original pump caused by the alleged defect. But in his deposition, he admits having no basis to make this assumption. Edgar Dep. 104-05. He acknowledges that he does not know how many of the replacement pumps have actually been installed in a class vehicle, Edgar Dep. 104, and that there are many non-defect-related reasons for why a CP4 pump might be replaced.

He candidly admits that he has not reviewed repair records produced by various dealerships in response to Plaintiffs' subpoenas evidencing pump failures for multiple reasons unrelated to the alleged defect, including descriptions of contaminated fuel and admissions by customers of misfueling their trucks with gasoline or DEF. Edgar Dep 79 – 82. Dr. Edgar ultimately admits in this regard that a pump may be replaced as a result of:

- (a) The technician misdiagnosed the original pump as failed. In fact, he allowed, there was evidence in the record that this has occurred – in the form of pumps returned to Bosch for inspection that were found to be working. Edgar Dep. 77-79.

- (b) Customer abuse rising above the level Dr. Edgar would expect Ford or Bosch to design against, such as misfuelling, failing to empty the water separator reservoir, failing to replace the particulate filters, and putting Diesel Exhaust Fluid into the fuel tank.³ Edgar Dep. 75-76, 105. Repair records produced by dealerships in Texas contain numerous instances of customers admitting to these mistakes or fuel samples showing clear evidence of water or other contamination. In one such record, the technician noted that the customer's fuel sample "looks like it has algae floaties that look like lemonade pulp." Edgar Dep. 82-83; Repair Record **Ex.14**. When class representative Darren Fulton had his fuel pump replaced, the fuel lab found fragments of his vehicle fuel filter in his fuel sample, indicating the filter had been restricted with excessive particles and thus had broken up and gotten into the fuel. Edgar Dep. 62-63; Fulton Insurance Claim File, **Ex. 15**.
- (c) Faulty repair – where the technician conducts a replacement repair incorrectly resulting a failure of the replacement pump, thus requiring another installation of another replacement pump. Edgar Dep. 77-79.
- (d) Malfunction of pump unrelated to lubricity – There is at least one repair record produced by a Texas dealership in which a CP4 pump was replaced due to a "faulty fuel pressure volume control valve." Edgar Dep. 79-80; Repair Record, **Ex 16**.
- (e) Performance enhancement – Dr. Edgar testified he was aware there are businesses that purchase CP4 pumps to upgrade them for enhanced performance and replace healthy pumps with them. Edgar Dep. 83-85.

Dr. Edgar admits that for any given pump replacement that has actually occurred, he cannot state whether it was caused by the defect he alleges versus any of the above non-defect-related causes:

Q: For any - how many - do you know how many of all these replacement pumps that have been sold by Bosch to Ford or to the IAM [Independent Aftermarket], do you know how many of those have been used in a pump replacement?

A: No, I don't.

Q: And for all those - for all those that have been used in a pump replacement, is it fair to say that you do not know the reason why that pump was replaced?

³ Starting in model year 2011, Ford introduced a new exhausts aftertreatment system. The aftertreatment system includes a Selective Catalytic Reduction system (SCR) designed to reduce emissions of oxides of nitrogen by injecting Diesel Exhaust Fluid (DEF) into the exhaust system. DEF is added to a storage tank in the vehicle via a well-marked fill pipe located beside the fill pipe for diesel fuel. DEF is 67.5% water. If accidentally added to a diesel fuel system, it can cause widespread corrosion to the fuel system. Lillo Rpt at 28-29.

A: No, I don't have detailed understanding of why the pump was replaced. I can make - *I make assumptions* about the reason why one would replace a pump. And, again, my conclusions, the vast majority of them are replacing a failed pump.

Q: Okay. And with regard to - with regard to failed pumps, let's just take - let's just take that population of replacement pumps that were used to replace a failed pump. You do not - for each of those, you do not know what causes that pump failure, correct?

MR. PATTERSON: Objection.

THE WITNESS: Correct.

Q: For instance, for each of those replaced pumps, you can't say whether it was replaced as a result of customer abuse, correct?

A: That's correct.

Q: And you can't say whether or not it was replaced as a result of misfueling, correct?

A: That's correct.

Q: And you can't say whether it was replaced for any number of other reasons, correct?

MR. PATTERSON: Objection.

THE WITNESS: That's correct.

Edgar Dep. 104-05 (emphasis added).

Dr. Edgar showed up to only two vehicle inspections – of former class representatives no longer involved in this case. One of those vehicles – belonging to Eric Stevens – had all of its emissions equipment removed in violation of the warranty. Dr. Edgar did not document this inspection in any way, did not know that Mr. Stevens had his original fuel pump replaced by an independent repair shop at 90,000 miles, and had no understanding why that repair was necessary. The other vehicle belonged to Paul Ponteaux. Ford representatives took a fuel sample from Mr.

Ponteaux's truck and shared some of it with Dr. Edgar, who did nothing with it. Dr. Edgar admitted that the results of Ford's testing of that sample would be important to his analysis, yet it "was not something [he] followed up on." Edgar Dep. 59. He does not dispute that Ford's testing revealed the fuel was contaminated with DEF crystals and algae. *Id.*

Dr. Edgar did not bother to inspect current class representative Mr. Broussard's vehicle, the only class representative vehicle available. And he shows no interest in learning anything about Messrs. Broussard or Fulton's vehicles or the conditions of usage, repair records, or insurance files associated with them. He cannot say whether they have had any problems with their fuel pumps or had them replaced, or, if they have had them replaced, what may have led to the need for replacement. He has no reason to dispute that Mr. Fulton, for example, had his original fuel pump replaced and that in the process a fuel sample taken from his truck was tested in a lab and shown to have fragments of fuel filter in it, evidencing lack of proper maintenance. Edgar Dep. 62-63.

Finally, somehow, Dr. Edgar claims that his alleged fuel pump defect constitutes a "safety issue." He asserts that pump failure could cause reduced pressure within the fuel rails on the engine, leading to a reduction in power or stalling. He cannot cite a single incident, however, in which a pump failure in a class vehicle has led to injury or even an accident. Edgar Dep. 146. He acknowledges that the National Highway Safety Administration (NHTSA), which regulates automotive safety in the U.S., investigated and rejected a similar claim made against Volkswagen in 2011. *See* NHTSA EA11-003 Closing Resume, **Ex. 17**. He does not know, but does not dispute, that one of the principal grounds NHTSA cited for closing that investigation without finding a safety defect was their finding that an engine failure and resulting stall would be preceded by multiple warnings to the driver that there was something wrong with their vehicle, and he admits

having no basis to say the class vehicles have any less of an effective detection and warning system. Nor does he dispute (or know about) NHTSA’s further rationale for its decision – that the VW vehicles at issue in the investigation had less than a 1% stall rate – and he has no basis to say the class vehicles’ stalling rate is any higher here. Edgar Dep. 147-49; NHTSA EA11-003 Closing Resume, at 1.

ARGUMENT

“Expert testimony that is insufficiently reliable to satisfy the *Daubert* standard cannot ‘prove’ that the Rule 23(a) prerequisites have been met ‘in fact,’ nor can it establish ‘through evidentiary proof’ that Rule 23(b) is satisfied.” *Prantil v. Arkema Inc.*, 986 F.3d 570, 575 (5th Cir. 2021) (quoting *In re Blood Reagents*, 783 F.3d at 187.) Plaintiffs bear “the burden of establishing by a preponderance of the evidence that the challenged expert testimony is admissible.” *Guzman v. State Farm Lloyds*, 456 F. Supp. 3d 846, 852 (S.D. Tex. 2020). To be admissible under *Daubert*, expert testimony must be “both ‘reliable’ and ‘relevant.’” *Knight v. Kirby Inland Marine Inc.*, 482 F.3d 347, 352 (5th Cir. 2007) (quoting *Daubert*, 509 U.S. at 589).

Though trained experts commonly extrapolate from existing data, “nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to the existing data only by the ipse dixit of the expert.” *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997) “The district court’s responsibility is ‘to make certain that an expert . . . employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.’” *Pipitone v. Biomatrix, Inc.*, 288 F.3d 239, 244 (5th Cir. 2002) (quoting *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 152 (1999)).

I. Dr. Edgar lacks a reliable basis for his defect opinion.

Federal Courts applying Rule 702 invariably exclude the testimony of experts who, as here, ignore or fail to consider material factual evidence, especially when it directly contradicts the

experts' testimony. *See, e.g., Schindler v. Dravo Basic Materials Co., Inc.*, 790 F. App'x 621 (5th Cir. 2019) (affirming exclusion of expert who failed to review plaintiff's deposition testimony in which plaintiff conceded facts contrary to expert's "assumptions."); *Guzman v. State Farm Lloyds*, 456 F. Supp. 3d 846, 854 (S.D. Tex. 2020) (excluding expert who "fail[ed] to account for the otherwise un rebutted facts that contradict his opinions"); *Concord Boat Corp., Brunswick Corp.*, 207 F.3d 1039, 1056 (8th Cir. 2000) (finding reversible error in admitting an expert damages model that "ignored inconvenient evidence."); *Barber v. United Airlines, Inc.*, 17 F. App'x 433, 437 (7th Cir. 2001) (affirming exclusion of expert "[b]ecause in formulating his opinion [he] cherry-picked the facts he considered")

As explained above, Dr. Edgar admitted during his deposition that he ignored evidence produced in this case that is material to his analysis and opinions. He opines that the CP4 pump in class vehicles was not properly tested to ensure its robustness to diesel fuel sold in the United States, yet he failed to review the uncontradicted evidence – all of which was elicited by Plaintiffs' counsel through discovery or third party subpoena to Bosch and/or is publicly available -- that shows that Bosch and Ford conducted component, system and vehicle level testing of the CP4 pump showing its robustness to commercial diesel fuel sold in the United States – as well as even lower lubricity fuels such as JP8 jet fuel. Ford's and Bosch's test reports that were produced to Plaintiffs show that the class vehicles can operate over the lifetime of the vehicle [REDACTED] and Dr. Edgar admits that, though being aware of them, he has not asked to review them. And having failed to review all of this testing, he admits he is in no position to criticize it.

Dr. Edgar likewise made no effort to learn anything about the plaintiff's vehicles. He did not inspect those vehicles or their CP4 pumps and did not research their maintenance history. He cannot say whether the CP4 pumps in those vehicles failed, or, if they failed, what caused such

failure. There is documented evidence, for example, that plaintiff Darren Fulton had a pump replacement in which his fuel was sampled in a lab and found to be contaminated with material from the particulate filter on his truck indicating the filter was plugged with excessive particles and failing. Dr. Edgar asserts that all replacement Ford CP4 pumps sold by Bosch were used to replace pumps that failed as a result of hypothesized “fragile to U.S. diesel fuel” theory, yet he has turned a blind eye to the overwhelming evidence regarding Mr. Fulton’s truck that contradicts his theory. He likewise made no effort to learn the results of the fuel sample taken during the inspection of *Droesser v. Ford Motor Co.*, No. 5:19-cv-12365 (E.D. Mich.), class representative Paul Ponteaux, which found it contaminated with algae and diesel exhaust fluid. And he failed to attend plaintiff Broussard’s vehicle inspection at which time a fuel sample from his improperly installed auxillary tank was taken and later documented to be contaminated with multiple times the normally acceptable amount of participate contamination. Lillo Rpt. 94-103.

Dr. Edgar’s “failure rate” opinion in fact ignores evidence of numerous known non-defect-related causes of pump replacements, including misdiagnosis, customer abuse, misfueling, failing to maintain the vehicle and other causes. His efforts to avoid inconvenient evidence of these alternative causes is best exemplified by the fact that as part of his analysis he requested Ford CP4 pumps from used part dealers that were “known to be failed,” and upon disassembling the 9 pumps that were sent to him, he found 3 of the pumps were in working order, suggesting their failure had been misdiagnosed; Dr. Edgar chose to not include this analysis in his report. Edgar Dep. 106-08. Though he acknowledges these non-defect-related causes exist, he expressly admitted that he disregarded them in favor of his *assumption* that most replacements were occasioned by the defect he has theorized. Edgar Dep. 104-05. This is pure speculation, the admission into evidence of which would constitute reversible error.

The District Court for the Southern District of Ohio dealt with a similar situation just last year in *Kondash v. Kia Motors Am., Inc.*, --- F.R.D. ----, 2020 WL 5816228, at *1-2 (S.D. Ohio Sept. 30, 2020). Plaintiffs in that putative class action alleged a design defect in the panoramic sunroofs (“PSRs”) of certain Kia vehicles that caused the glass to spontaneously shatter. The Plaintiffs’ two experts opined that the PSRs in Kia’s vehicles contained a classwide defect. *Id.* at *2. The first expert calculated a PSR “failure rate” based on sales on replacement sunroof glass panels *Id.* at *7. The court found this approach unreliable for several reasons.

The court found that the purported “failure rate does not actually calculate or reflect “failures” because he counts *replacement parts sold*, not *incidents*.” *Id.* at *8. Multiple glass panels could be used for a single repair, inflating the number of failures. *Id.* And the expert disregarded the various reasons a replacement sunroof might be sold unrelated to spontaneous shattering, such as crashes, leaks, wind, or the mechanism used to open the PSR. *Id.* The expert could not identify “a single example of when anyone else had ever used “replacement parts sold” to determine a rate of failure [or] assess the existence of a defect.” *Id.* The court also found that the expert’s defect opinion was speculative and lacked any factual basis because he did not compare his failure rate to peer vehicles or Kia vehicles with different sunroofs or explain what failure rate would be acceptable. *Id.* Instead, the expert “only reviewed documents . . . and did no further testing to prove his theory.” *Id.* at *9.

The Plaintiffs’ second expert reviewed documents and inspected several failed PSRs, opining that most had failed due to the alleged defect. *Id.* at *10. But the court found that the only link between the purported cause of the failures and the Plaintiffs’ defect theory was the expert’s “own speculation.” *Id.* The expert had not inspected, besides the failed sunroofs, any of the class vehicles. *Id.* While the expert hypothesized several potential causes of shattering sunroofs related

to the alleged defect, he could not say that any of the potential causes had caused any of the failures the expert observed. *Id.* at *10-11. That failure to link observed failures with the alleged defect left the defect “hypothesis as just that - a hypothesis.” *Id.* at *11.

Dr. Edgar’s testimony in this case suffers the same deficiencies that rendered the experts’ testimony inadmissible in *Kondash*. He bases his opinions on “research and review of discovery,” but fails to research and review the most pertinent discovery. He bases his defect claim on an express assumption that all replacement parts sales reflect a pump failure caused by his alleged defect, but ignores all of the evidence strongly suggesting that many pump replacements were caused by non-defect-related causes. Likewise, Dr. Edgar proposes the CP3 as a feasible alternative design but admits that he has not evaluated whether that pump would meet class vehicle performance requirements. He understands this analysis is critical, taking pains in his report to cite data establishing that the CP3 is rated to deliver fuel at the Ford-required 2000 bar of pressure into the fuel rail; however, during his deposition he admitted that the data he cited in his report does not actually support his contention, and he further acknowledged having done no evaluation to show that the CP3 pump could meet all of the other relevant vehicle performance requirements. Edgar Dep at 122-29. As in *Kondash*, he did not bother to inspect the class vehicles and has not even inquired into the results of those inspections.

Conducting the same gatekeeping analysis under Rule 702 as the court in *Kondash*, this court should exclude Dr. Edgar’s opinions in this case.

CONCLUSION

Courts have excluded experts who have failed to test their theories, experts who have disregarded undisputed facts, experts who have ignored the parties’ experiences, experts who have cherry-picked data, and experts who have purported to quantify a defect rate with part sales. If *Daubert* and *Kumho Tire* mean anything, those foundational precedents require exclusion of an

expert who tried to use *all* of those unreliable methods to reach his opinions. Thus, the Court should exclude Dr. Edgar's report and testimony in its entirety.

Respectfully submitted,

/s/ Charles B. Hampton

Charles B. Hampton, Attorney in Charge
Texas Bar No. 00793890
MCGUIREWOODS LLP
600 Travis St., Suite 7500
Houston, Texas 77002
(713) 353-6683 / (832) 214-9936 (Fax)
hampton@mcguirewoods.com

Courtney C. Shytle (*pro hac vice*)
cshytle@mcguirewoods.com
MCGUIREWOODS LLP
201 North Tryon Street, Suite 3000
Charlotte, NC 28202
(704) 343-2110 / (704) 444-8710 (Fax)

Perry W. Miles, IV (*pro hac vice*)
pmiles@mcguirewoods.com
Brian D. Schmalzbach (*pro hac vice*)
bschmalzbach@mcguirewoods.com
W. Cole Geddy (*pro hac vice*)
cgeddy@mcguirewoods.com
MCGUIREWOODS LLP
800 East Canal Street
Richmond, VA 23219
(804) 775-1039 / (804) 698-2122 (Fax)

Attorneys for Ford Motor Company

CERTIFICATE OF SERVICE

I hereby certify that on May 17, 2021, I electronically filed the foregoing document with the Court via CM/ECF, which will automatically send notice and a copy of same to all counsel of record via electronic mail.

/s/ Charles B. Hampton